

REMARKS/ARGUMENTS

Reconsideration of the above-identified application in view of the following remarks is respectfully requested. Claims 6-8 are pending.

Claim Rejections under 35 U.S.C. §103

Claims 6-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Appln. No. 2003/0022616 to Stiehl (hereafter "Stiehl"). That rejection is respectfully traversed.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 35 U.S.C. § 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." In making a determination of obviousness under 35 U.S.C. §103(a):

...the scope and contents of the prior art are determined; the differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. Graham v. John Deere, 383 U.S. 1, 17-18, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966).

Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational

underpinning to support the legal conclusion of obviousness. KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727; 2007 U.S. Lexis 4745, 36-37; 75 U.S.L.W. 4289; 82 U.S.P.Q.2d 1385, 1396 (2007) (emphasis added). Also, the U.S. Supreme Court in KSR Int'l. Co. V. Teleflex, Inc. noted that the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit, and that it was "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed." Id., 82 U.S.P.Q.2d at 1396. It is respectfully submitted that claim 6 is patentable over Stiehl for at least the following reasons.

1. Stiehl does not teach or suggest all of the claim limitations of claim 6.

Claim 6 recites a vehicle body air vent comprising a frame and an antenna body. The plastic material of the frame and the antenna body are integrally molded such that the antenna body is embedded in and completely surrounded by the plastic material of the frame. Thus, every part of the antenna of claim 6 is surrounded by the plastic of the frame. Stiehl does not teach or suggest an antenna body and plastic material of a frame integrally molded such that the antenna body is embedded in and completely surrounded by the plastic material of the frame.

Stiehl teaches an air vent 10 for venting the interior of a vehicle. An antenna 62 having a middle bar 64 and a cross bar 66 is fitted to a frame 12 of the air vent 10. A protuberance on the antenna 62 is inserted into the mounting opening 60 to center the antenna on the frame 12. The antenna 62 is fixed to the frame 12 by means of three fastener points in the region of a recess 50, namely, by snap action

tabs 54 and the cooperation of latching tabs 46 with protrusions 70 on the antenna (Paragraph 17 and Figs. 3-4).

The Examiner asserts that the wall sections 36, 38, 40, 42, as well as snap action tabs 54 and protrusions 70 constitute structure of the frame 12 which completely surrounds the antenna 62 (Office Action page 5). As noted, however, the protrusions 70 are part of the middle bar 64 of the antenna 62 - not part of the frame 12 – and, thus, cannot constitute a portion of the frame surrounding the antenna. Regardless, the antenna 62 is not embedded in and completely surrounded by the plastic material of the frame 12. As shown in Fig. 1, when the antenna 62 is fitted onto the frame 12, a portion of the middle bar 64 clearly extends substantially beyond the wall 36 of the frame and, thus, is completely uncovered, i.e., not surrounded by the frame.

Furthermore, even when the air vent 10 is inserted into a panel aperture in the vehicle, the side of the antenna 62 facing away from the frame 12 is completely exposed. In particular, when the air vent 10 is mounted in the panel aperture, the panel is positioned outside of the walls of the frame 12 and engages the fastener tabs 84 on the frame and the gasket 86. This engagement causes the plastic frame 12 and the antenna 62 to extend into the aperture. Since the panel extends around the walls of the frame 12, the entire crossbar 66 and a portion of the middle bar 64 between the connecting wall 32 and the wall section 38 of the frame 12, which are positioned within the frame, have the material of the frame on one side and are completely uncovered on the other side. The remaining portion of the middle bar 64 that extends beyond the frame 12 has the material of the vehicle on one side and is

completely uncovered on the other side. Therefore, not only does the frame 12 not completely surround the antenna 62, but no structure whatsoever completely surrounds the antenna.

Additionally, claim 6 recites that the antenna is completely surrounded by the plastic material of the frame because the antenna and the frame are integrally molded together. Hence, the antenna of the present invention is also protected from physical damage when it is not mounted in the vehicle. By contrast, the side of the antenna 62 facing away from the frame 12 of Stiehl is always exposed and, thus, unprotected before and after the air vent 10 is mounted to the vehicle panel. The Examiner asserts that this recitation represents a product-by-process limitation that does not reveal a structural difference between the claimed invention and Stiehl and, thus, does not patentably distinguish the claimed invention (Office Action page 2). The recitation of an integrally molded connection, however, is a structural difference between the present invention and Stiehl that affords the antenna of the present invention more protection than the frame 12 of Stiehl is capable of affording.

When the terms of a claim are amenable to interpretation as a procedure of manufacture, they should be interpreted as structural limitations when used in an adjective non-process sense and define a physical characteristic of the apparatus. See CVI/Beta Ventures, Inc. v. Custom Optical Frames, Inc., 893 F. Supp. 508, 519 (D. Md. 1995) Cf. Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 39 USPQ2d 1783 (Fed. Cir. 1996). For example, the word 'frozen', though descriptive of the process of freezing, definitely describes an objective characteristic observable by inspection of the product. Likewise, the Federal Circuit has held the terms

"superimposed" and "embossed" to be structural limitations and not product-by-process limitations. *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365 (Fed. Cir. 2003), cert. denied, 124 S. Ct. 2877 (2004).

In the present case, by completely surrounding the antenna with the plastic of the frame by integrally molding the two together, the entire antenna can be safeguarded from damage at any time, whereas the side of the antenna 62 facing away from the frame 12 in Stiehl is always exposed, whether the frame is mounted in the vehicle or not. Therefore, the integrally molded connection of the present invention provides a structural feature – the complete physical surrounding of the antenna at all times – that the frame 12 of Stiehl is not capable of providing. The physical surrounding of the antenna by the frame is an objectively observable characteristic of the frame and, thus, provides a structural feature to the frame. Accordingly, the integrally molded connection in claim 6 recites structural differences between the present invention and Stiehl and, therefore, should be given patentable weight. For the reasons set forth above, the rejection of claim 6 under 35 U.S.C. §103(a) fails to establish a prima facie case for obviousness because Stiehl does not teach or suggest all of the claim limitations of claim 6.

2. There is no reason that would have prompted a person of ordinary skill in the relevant field to modify Stiehl to include the subject matter recited in claim 6.

One having ordinary skill would not have modified Stiehl to provide that an antenna body and the plastic material of a frame are integrally molded such that the antenna body is embedded in and completely surrounded by the plastic material of the frame because such a modification would be duplicative and, thus, non-obvious.

The Examiner states that it would have been obvious "to have integrated the antenna into the plastic since such a modification would not affect the performance of the antenna, nor does it solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one having ordinary skill in the art and it has been held that the term "integral" and its derivative is sufficiently broad to embrace constructions united by such means as fastening and welding". However, this is not a reason that would have prompted a person of ordinary skill in the relevant field to modify Stiehl to provide that an antenna body and the plastic material of the frame are integrally molded such that the antenna body is embedded in and completely surrounded by plastic material of the frame.

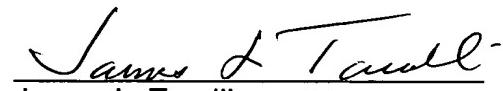
The Examiner contends that the antenna 62, when mounted, would be completely surrounded by the aforementioned components to meet the applicants' need of not being affected from deterioration by environmental influences (Office Action page 5). Stiehl, however, teaches that a gasket 86 – not portions of the frame 12 – seals off the air vent 10 so that the antenna 62 is accommodated in the vehicle safe from physical damage (Paragraph 20). Since the antenna 62 in Stiehl is already: 1) protected from physical damage by the gasket 86, and 2) mechanically attached to the frame 12, completely surrounding the antenna with the plastic material of the frame would be duplicative and, thus, non-obvious to one having ordinary skill. For these reasons, it is respectfully submitted that claim 6 is patentable over Stiehl and is therefore allowable.

Claims 7 and 8 depend from claim 6 and are allowable for at least the same reasons as claim 6 and for the specific limitations recited therein.

In view of the foregoing, it is respectfully requested that the response be entered and the application allowed. It is believed that the response introduces no new issues and requires no additional searching by the Examiner.

Please charge any deficiency or credit any overpayment in the fees for this matter to our Deposit Account No. 20-0090.

Respectfully submitted,


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